

College of Southern Idaho

Radiologic Technology Program Outcome Assessment Plan—Class of 2017

Mission: To prepare students to become graduates for entry-level employment as ARRT Registered Technologists in Radiography.

Category 1: Graduate Performance

Goal 1: Program effectiveness will be measured on an ongoing basis.

Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Enrolled students will complete the program.	CSI Institutional Research Graduation Report	≥ 80 % annual graduation rate.	Commencement (May)	Program Director	Yes 12/12 = 100%	None
2. Graduates will pass the ARRT exam in radiography on the first attempt.	<p>A. Annual first time pass rate.</p> <p>B. 5 year first time pass rate.</p> <p>C. Annual program mean scaled score.</p> <p>D. 5 year program mean scale score.</p> <p>[Note: Data is from the ARRT Radiography Examination Summary.]</p>	<p>A. ≥ 80 % Annual first time pass rate.</p> <p>B. ≥ 80 % 5 year first time pass rate.</p> <p>C. ≥ 80 Annual program mean scaled score.</p> <p>D. ≥ 80 5 year program mean scaled score.</p>	January 1 to December 31 for graduating class.	Program Director	<p>A. Yes 11/12 = 92%</p> <p>B. Yes 55/62 = 89%</p> <p>C. Yes 87%</p> <p>D. Yes 85%</p>	<p>A. None</p> <p>B. None Note: Consider a conference memo with students scoring < 75 on any mock in final semester with a plan for improvement and weekly email update on their plan until next mock to raise awareness and commitment for closing the gap.</p> <p>C. None</p> <p>D. None</p>

3. Graduates will be employed within 6 months.	Alumni Survey Question # 4.	≥ 80 % of those seeking employment of those surveys returned. (Excludes military and continuing education.)	Six months post-graduation.	Program Director	Yes 11/12 = 92%	None
4. Graduates will receive a quality education.	Alumni Survey Question # 1.	≥ 80% students answer YES of those who returned surveys and answered the question.	Last day of class during final spring semester.	Program Director	Yes 12/12 = 100%	None
5. Employers will be satisfied with the (hard – technical) performance of graduates.	Employer Survey Question #4	≥ 95 % Combined satisfactory rating of those surveys returned.	Six months post - graduation.	Program Director	Yes 2/2 = 100%	Note: Survey still underway at Survey Monkey.

Category 2: Clinical Performance.

Goal 2: Students will be clinically competent.

Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will provide appropriate patient care	A. RADT 102 Orientation to Radiologic Technology Unit Exams # 4 – 7	A. ≥ 80 % Combined average score	A. First semester	A. Didactic Instructor	A. Yes 12/12 = 97%	A. None
	B. RADT 165 Fundamentals of CT.	B ≥ 80 % Combined average score	B. Second semester	B. Didactic Instructor	B. Yes 12/12 = 94%	B. Change to 5 th semester (when course is offered).
	C. All competency evaluation forms.	C. ≥ 90 % First time pass rate on all competency evaluations.	C. Third, Fourth, Fifth semesters	C. Clinical Coordinator	C. Yes 628/659 = 95% (31 Unsatisfactory)	C. None

	D. All unsatisfactory competency exams. #1,2,9.	D. ≤ 2% first time unsatisfactory rate of patient care tasks of all comps. (Note: We are counting comps, not tasks because it only takes one unsatisfactory to fail a comp. And, students may fail in one or more of the three areas for each Unsat comp.)	D. Third, Fourth or Fifth semester	D. Clinical Coordinator	D. Yes 2/659 = .3%	D. None
2. Students will demonstrate quality positioning.	A. RADT 162 Radiographic Procedures II Unit Exams # 12 - 16. B. All unsatisfactory competency exams. #5, 6, 7.	A. ≥ 80 % Combined average score. B. ≤ 2% first time unsatisfactory rate of positioning tasks.	A. Fourth semester B. Third, Fourth and Fifth semester	A. Didactic Instructor B. Clinical Coordinator	A. Yes 12/12 = 94% B. Yes 8/659 = 1.2%	A. None B. None Note: 5, 6, 7 are now 10, 11, 12 on new form.
3. Students will apply appropriate radiation safety principles.	A. RADT 152 Radiation Protection Unit Exams # 7 and 8. B - 1 All unsatisfactory competency exams #3, 4, 8. B - 2	A. ≥ 80 % Combined average score. B-1. ≤ 2% first time unsatisfactory rate of radiation safety tasks. B-2. ≥ Score of 3 on a scale of 1 – 4	A. Second semester B-1. Third, Fourth and Fifth semester. B-2. Fifth semester.	A. Didactic Instructor B-1. Clinical Coordinator B-2.	A. Yes 12/12 = 98 % B-1 Yes 10/659 – 1.5% B-2 Yes 12/12 = 4	A. None B-1. None Note: 3, 4, 8 are now 9 – 13 and EI Range on new form. B-2. None

	Final grade determination form B. #1	(Unsatisfactory to Excellent)		Clinical Coordinator		
4. Students will demonstrate the ability to evaluate image quality.	A. RADT 153 Image Analysis Unit and Final Exams 1-15, Final Exam A and B. B. All unsatisfactory competency exams image quality assessment factors.	A. $\geq 80\%$ Combined average score. B. $\leq 2\%$ First time unsatisfactory rate of image quality assessment factors.	A. Second semester. B. Third, Fourth and Fifth semester.	A. Didactic Instructor B. Clinical Coordinator	A. No B. No 16/659 = 2.4%	A. Final grades were lost during change from BB to Canvas and couldn't be retrieved. B. Note: Consider raising to industry standard. Note: Some failed comps failed for multiple reasons.
Category 3: Problem Solving and Critical Thinking						
Goal 3: Students will possess problem solving and critical thinking skills.						
Outcome	Tool	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will apply ALARA exposure techniques resulting in quality images using optimum kVp/Low mAs for the exposure index range (S#, LgM, IE).	A. RADT 164 Imaging and Processing Unit Exams # 5, 6. (Note: Exposure Techniques and AEC units) B. Final Grade Determination Form B. # 2 (Student thinks critically.)	A. $\geq 80\%$ Combined average score. B. \geq Score of 3 on a scale of 1 –4 (Excellent to Unsatisfactory)	A. Fourth Semester B. Fifth Semester	A. Didactic Instructor B. Clinical Coordinator	A. Yes 12/12 = 98%` B. Yes 12/12 = 3.8	A. None B. None

2. Students will assess the quality of radiographic images.	RADT 182 Clinical Education III # 4 Mock Exam / Section 3: Image Production and Evaluation.	≥ 7.0 Combined average ARRT normalized section score.	Fifth Semester	Clinical Coordinator	Yes 12/12 = 7.7	None Note: ARRT Image Acquisition & Technical Evaluation section score was 8.7 (7.5 was passing).
3. Students will adjust equipment operation and quality control factors.	RADT 182 Clinical Education III # 4 Mock Exam: Section 2: Equipment Operation and Quality Control	≥ 7.0 combined average ARRT normalized section score.	Fifth semester	Clinical Coordinator	No 12/12 = 6.9	None Note: ARRT Equipment Operation & Quality Assurance section score was 8.6 (7.5 was passing).
Category 4: Communication Skills						
Goal 4: Students will communicate and interact effectively with patients and staff.						
Outcomes	Tools	Benchmark	Time Frame	Responsibility	Result	Action
1. Students will engage in productive radiography-related discussions with patients, staff and each other.	Clinical Education Grade Determination Form B # 5.	\geq Score of 3 on a scale of 1 – 4, (Excellent to Unsatisfactory).	Fifth semester.	Clinical Coordinator	Yes 12/12 = 3.8	None
2. Students in didactic setting will communicate effectively in writing.	Idaho Falls Book Report (replaced post certification report).	$\geq 80\%$ combined Average score (replaced ≥ 8 points combined satisfactory rating)	Third semester.	Clinical Coordinator	Yes 1140/1200 = 95%	Note: Although students learned quite a bit about the reactor incident in the book Idaho Falls, this tool was too much work for students and faculty and turned into an English assignment.

Category 5: Professional Growth and Development						
Goal 5: Students and graduates will behave ethically.						
Outcomes	Tools	Benchmark	Tim Frame	Responsibility	Result	Action
1. Students will apply the employability skills of a radiographer.	Final Grade Determination Form B. #1-6	≥ 90 % Combined satisfactory rating. (out of 30 points.)	Fifth semester.	Clinical Coordinator.	Yes 12/12 = 94%	None
2. Graduates will apply soft-personal employability skills of an RT (R).	Employer's Survey # 5 (personal skills)	≥ 95 % Combined satisfactory rating <i>of those employer surveys returned.</i>	Six months post graduation.	Program Director	Yes 2/2 = 100 % Survey underway at Survey Monkey.	
3. Students will develop a five year career development plan.	Five Year Career Development Plan	≥ 90 % Combined satisfactory rating.	Fourth semester	Clinical Coordinator	Yes 12/12 = 98%	
Class of 2017 Outcome Assessment Plan						
Program Effectiveness Measures						
(Category I: Graduate Performance)						
Program Completion Rates	Benchmark for 1.1.1 of ≥ 80 % annual graduation rate was met at 100 %. Twelve out of twelve students selected into the Class of 2017 complete the program and graduated on time.					
ARRT Pass Rates & Scaled Scores	All 4 benchmarks for 1.1.2 was met. Annual first-time pass rate was 80% or greater at 92%. Note: The only failure from this class on the ARRT exam immediately retook the exam and passed. Five-year first-time pass rate was ≥ 80% at 89%. Annual program mean scaled score on the ARRT exam was ≥ 80% at 87%. Five-year program mean scale score on the ARRT exam was ≥ 80% at 85%. (Note: Four failures on the ARRT exam from the Class of 2013 – five years ago are responsible for keeping this five-year average low.)					
Employment Rates	Benchmark for 1.1.3 of ≥ 80% of those seeking employment of those surveys returned (excluding military and continuing education) was met at 92%. One graduate did not actively seek employment until January 2018 and has been looking to become trained as a biomedical service electrician.					
Graduate Satisfaction	Benchmark for 1.1.4 of ≥ 80% students received a quality education was met at 100%.					

Employer Satisfaction (of Graduate Technical Skills).	Benchmark for 1.1.5 \geq 95% combined satisfactory rating of those surveys returned was met with only 2 respondents at 100%. Note: This survey is currently ongoing at Survey Monkey with 7 employers who have yet to respond to the survey.
Amendments to Category I: Graduate Performance (Program Effectiveness)	None.
Summary	All 8 benchmarks reflecting 5 outcomes were met for Category I: Graduate Performance. The vast majority of students (\geq 80%) enrolled in the CSI Radiologic Technology Program are completing the program, graduating from CSI, passing the ARRT exam, gaining employment, receiving a quality education, and satisfying employers with their technical competence.
Student Learning Outcomes (Categories II – V)	
Category II: Clinical Performance	All 11 benchmarks reflecting 4 outcomes for Category II: Clinical Performance were met.
Amendments to Category II: Clinical Performance	Category II: Clinical Performance has been completely revised because of JRCERT recommendations during the development of the Interim Report resulting a proposal of 10 outcomes and 36 benchmarks. See attached proposed Class of 2018 Outcome Assessment Plan. Jake Kerley motioned to revise benchmark 2.2.4 to \leq 5% for all competency evaluation tasks. Motion seconded by terry Patterson and unanimously approved.
Summary	All 11 benchmarks reflecting 4 outcomes for Category II: Clinical Performance were met. As evidenced in the overwhelming number of assessments that students undergo to prepare for and achieve clinical competence as entry level radiographers, our students are demonstrating professional communications, safety and transfer of patients, patient care and assessment, infection control, exam prep, and how to deal with acute situations. They are demonstrating quality radiography position skills for non-invasive and invasive procedures in class-lab and in clinical education. They are applying appropriate radiation safety measures in protecting the patient, themselves and others. They are correctly evaluating image quality on routine and non-routine patients. (Note: Collectively, the Class of 2017 exceeded the mean passing ARRT section score of 7.5 in all 8 sections of the radiography credentialing examination: (1) Patient Interactions and Management was 8.6; (2) Radiation Physics and Radiobiology was 8.4; (3) Radiation Protection was 8.6; (4) Image Acquisition

	and Technical Evaluation was 8.7; (5) Equipment Operation and Quality Assurance was 8.6; (6) Head, Spine, and Pelvis Procedures was 9.1; (7) Thorax and Abdomen Procedures was 8.5; (8) Extremity Procedures was 9.1.)
Category III: Problem Solving and Critical Thinking	All 4 benchmarks reflecting 4 outcomes for Category III: Problem Solving and Critical Thinking were met.
Amendments to Category III: Problem Solving and Critical Thinking	Category III: Problem Solving and Critical Thinking has been completely revised because of JRCERT recommendations during the development of the Interim Report resulting a proposal of 7 outcomes and 9 benchmarks. See attached proposed Class of 2018 Outcome Assessment Plan. Jason Lloyd motioned to modify any results/tables to include average and % of students in benchmark results in all Category III results. Motion was seconded by Rene Rambur and unanimously approved.
Summary	All 4 benchmarks reflecting 4 outcomes for Category III: Problem Solving and Critical Thinking were met. Students are operating radiography machinery correctly and selecting ALARA exposure techniques that are based on Target Exposure / Deviation Indexes that allow the computer's digital imaging algorithms to operate optimally in the production of diagnostic quality images. They are demonstrating image analysis during competency evaluations as monitored by RT evaluators, clinical instructors and the program clinical coordinator.
Category IV: Communication Skills	Both of 2 benchmarks for Category IV: Communication Skills were met.
Amendments to Category IV: Communication Skills	The tool for outcome 4.4.2 needs to be replaced with a more realistic and effect way to assess student written communications. A book report on the first nuclear reactor incident at Arco, Idaho used an extensive rubric for assessment that turned into more of a English course activity, even though we believe students learned many import things about the reactor incident. The amount of time and energy involved in this endeavor was too extensive. Students have already had Freshman English and Speech Communications courses. See attached proposed Class of 2018 Outcome Assessment Plan.
Summary	Both of 2 benchmarks for Category IV: Communication Skills were met. A more practical and effective tool for assessing student written communications for outcome 4.4.2 needs replaced.
Category V: Professional Growth and Development	All 3 benchmarks were met for Category V: Professional Development.

Amendments to Category V: Professional Growth and Development	None
Summary	All 3 benchmarks were met for Category V: Professional Development. Students are applying the values, ethics and compassion of a competent radiographer. They are developing a five-year career plan.
Assessment Plan Review	
Summary	25 out of 27 benchmarks (93%) reflecting 17 measured outcomes were met. Benchmark 2.2.4.A was not included (measured) as student data was lost and during the move from Blackboard to Canvas was unable to be retrieved.
Mission Statement	No recommended changes were made to the program mission statement: The mission of the College of Southern Idaho's Associate of Applied Science Radiologic Technology Program in Radiography is to prepare students to become graduates for entry level employment as ARRT Registered Technologists in Radiography.
Goals	No recommended changes were made to the program goals: The goals established to achieve this mission include: (1) Measuring program effectiveness on an ongoing basis; (2) Producing clinically competent students; (3) Producing students with problem solving and critical thinking skills; (4) Producing students who can effectively communicate and interact with patients and staff; (5) Producing students and graduates who behave ethically.
Recommended changes to the assessment plan.	Motions to revise 2.2.4 and all of Category III were made and seconded and unanimously approved. Changes will be affected on the Class of 2018 Outcome Assessment Plan that was unanimously approved.
Final Thoughts	JRCERT recommends that program faculty attend a JRCERT Outcomes Assessment Workshop in 2018. The Class of 2018 Outcome Assessment Plan is to be assessed at the next annual program advisory meeting during February 2019.
College of Southern Idaho Radiologic Technology Program Minutes from the Program Advisory Meeting of February 28, 2018 For the Class of 2017 Outcomes Assessment Plan	

From 2-28-2018 Program Advisory Meeting Minutes: Outcome Assessment Plan for the Class of 2017 was reviewed in detail under Gary's coordination in HSHS 178 CSI Rad Lab between 10 am and 12:15. Prior to starting the review, Gary presented the purpose of the review as prescribed by the Joint Review Committee on Education in Radiologic Technology. Each outcome was separately reviewed from "outcome" to "action" for each of the 5 categories as well as a corresponding review for the outcomes for the proposed 2018 OA plan. The review sought to clarify communication of data and/or any actions that may impact program improvements regarding the outcome in question. Motions to approve with or without revisions were called for each outcome separately for the Class of 2017 OA plan. Motions to approve with or without revisions were called for the 2018 proposed OA plan. (Note: Motions of these reviews and any revisions are below.)

Class of 2017 Outcome Assessment Plan Review & Approval 2-28-2018

Outcome	First Motion Accept w/o revisions Accept w revisions Not Accepted	Name	Revisions	Second Motion Name	Vote Approved Not Approved
1.1.1.	Accept w/o revisions	Tom Bandolin	None	RoseAnna Holliday	Approved
1.1.2. A,B,C,D	Accept w/o revisions	Terry Patterson	None	Debbie Rothwell	Approved
1.1.3	Accept w/o revisions	RoseAnna Holliday	None	Ty Rudkin	Approved
1.1.4	Accept w/o revisions	Jayson Lloyd	None	Kelsey Dietz	Approved
1.1.5	Accept w/o revisions	Rene Rambur	None	Tom Bandolin	Approved
2.2.1 A,B,C,D	Accept w/o revisions	Terry Patterson	None	Tom Bandolin	Approved
2.2.2 A,B	Accept w/o revisions	Debbie Rothwell	None	Jayson Lloyd	Approved
2.2.3 A, B-1, B-2	Accept w/o revisions	Jayson Lloyd	None	Kelsey Dietz	Approved
2.2.4 A,B	Accept with revisions	Jake Kerley	2.2.4 Benchmark: change to $\leq 5\%$ for all competency evaluation form tasks.	Terry Patterson	Approved
3.3.all	Accept with revisions	Jayson Lloyd	Modify any results/tables to include average and % of students in	Rene Rambur	Approved

			benchmark results in all category results for all of Goal 3.		
3.3.1 A, B	Accept w/o revisions	Debbie Rothwell	None	Ty Rudkin	Approved
3.3.2	Accept w/o revisions	RoseAnna Holliday	None	Debbie Rothwell	Approved
3.3.3	Accept w/o revisions	RoseAnna Holliday	None	Jayson Lloyd	Approved
4.4.1	Accept w/o revisions	Jayson Lloyd	None	Kelsey Dietz	Approved
4.4.2	Accept w/o revisions	Kelsey Dietz	None	Jayson Lloyd	Approved
5.5.1	Accept w/o revisions	Terry Patterson	None	Jayson Lloyd	Approved
5.5.2	Accept w/o revisions	Ty Rudkin	None	Kelsey Dietz	Approved
5.5.3	Accept w/o revisions	Jayson Lloyd	None	Debbie Rothwell	Approved
Proposed 2018 Outcome Assessment Plan Review and Approval 2-28-2018					
Category	First Motion Accept w/o revisions Accept w revisions Not Accepted	Name	Revisions	Second Motion Name	Vote Approved Not Approved
I: Graduate Performance: 5 Outcomes & 8 Benchmarks	Accept w/o revisions	Jayson Lloyd	None	Terry Patterson	Approved
II: Clinical Performance: 10 Outcomes & 36 Benchmarks	Accept with revisions	Kelsey Dietz	Considerations for venipuncture: 1. Add 1 credit course to show competency for venipuncture and/or reduce prerequisite credits by 1 2. Build up venipuncture requirement into CT course w/ competency requirements in clinical setting	Terry Patterson	Approved

			3. Approval and documentation with skills assessment presented to challenge out of venipuncture course		
III: Problem Solving and Critical Thinking: 7 Outcomes & 9 Benchmarks	Accept with revisions	Terry Patterson	Add verbiage to Outcome 1-6: "to be able to ...".	Kelsey Dietz	Approved
		RoseAnna Holliday	Add verbiage to Outcome 7: "Students will apply theoretical to practical application in clinical setting".	Kelsey Dietz	Approved
IV: Communication Skills: 2 Outcomes & 3 Benchmarks	Accept w/o revisions	Jayson Lloyd	None	Terry Patterson	Approved
V: Professional Growth and Development: 3 Outcomes & 3 Benchmarks.	Accept w/o revisions	Debbie Rothwell	None	Tom Bandolin	Approved